

The QuadraFlex DN100

The QuadraFlex DN100 is a rugged, full outdoor carrier grade communication system, which provides flexible access and backhaul capabilities for point to point and point to multi point applications.

The Datasat QuadraFlex range provides security, manageability, and reliability. The inherent drawbacks of ordinary mesh technology are overcome by using Layer 3 in the backhaul, and this makes the network efficient and far more reliable.

The Datasat QuadraFlex range provides a versatile and scalable solution in line with current connectivity requirements. Intelligent Layer 3 backhaul and access point connectivity can be provided simultaneously with a single, all weather unit. Thanks to the Layer 3 architecture, firewall and usable QoS can be provided in a controller-less environment, to make sure the system delivers critical content reliably. With support for industry standard encryption, the system conforms to the stringent security requirements of today.

Designed for the extremes – Weather proof and compact design allow for indoor and outdoor deployments of the same unit. Multi-radio support ensures multi-band and multi-mode operation, which increases coverage area, resilience and significantly reduces the number of DN100's needed.

Layer 3 architecture - Thanks to innovative Layer 3 architecture, the QuadraFlex units bring the network intelligence closer to the edge of the network. With Firewall, QoS and routing being delivered via the distributed intelligence architecture, the network eliminates a central controller and becomes inherently resilient.

More security - The network is made inherently secure by proper IP planning and design. Layer 3 design enables provisioning of complex network architectures to improve security and resilience. Multiple networks can be provisioned and managed thanks to intelligent routing and IP design.

More flexibility - Add or remove routers from a network with minimal effort. Networks can be scaled up or down in a matter of minutes. Controller-less operation enables quick network provisioning and scaling, ideal for urgent deployments to solve bandwidth congestion issues.

More delivered - With true multi radio capability, the QuadraFlex DN100 reduces the number of devices deployed, thus reducing real estate used. The Layer 3 architecture removes the need for routers or expensive controllers and delivers network connectivity with distributed intelligence static routers, even in extreme environments.



> DN100 FEATURES

- Layer 3 architecture ensures maximum Reach
- Distributed Intelligence Architecture brings features to the edge of the network and makes the network inherently resilient
- MIL-STD-810G operating temperature compliant between -40°C and +70°C
- MIL-STD-810G vibration standard compliant
- Dual band Licence exempt* 2.4GHz and 5GHz simultaneous operation
- 2x High Power Radio Interfaces (802.11a/b/g/n) operating simultaneously
- 2x2:2 MIMO Operation
- Up to 300Mbps headline connection speed
- 2x Electrical Gigabit Ethernet ports with PoE In capability
- VLAN trunking to device
- Ruggedised IP67 designed form factor
- WPA/AES and WEP security for legacy clients
- WPA-2 AES industry standard security support for backhaul traffic at all times
- Bespoke antenna configuration
- RP-TNC connectors for antenna flexibility
- Automatic Route healing thanks to Layer 3 architecture
- Controller-less & Controller-based Environments
- Multi-radio backhaul on non-interfering channels
- Minimal Latency and Jitter per hop
- Multiple SSID support on every radio interface
- Remote Management at Network, Router or Radio
- Software configurable single SKU product reduces stock holding
- Integrates seamlessly with Datasat Antenna, QuadraSphere NMS, And QuadraStorm CCTV solutions
- Eliminates any additional routing equipment or integration issues

Specifications

Radio (up to 2 per router)

Antenna 4 x RP-TNC type connectors, 2T2R

Operating Frequency*

802.11a/n ISM Band: 5.150 ~ 5.825GHz (DFS support on request)

802.11b/g/n ISM Band: 2.400 ~ 2.484GHz

Modulation

802.11b: CCK, DQPSK, DBPSK

802.11a/g: OFDM/DSSS

802.11n: OFDM/DSSS

Output Power*

2.4 GHz: up to 23dBm per chain/26dBm two chains (limited by regulatory requirements)

5 GHz: up to 22dBm per chain/25dBm two chains (limited by regulatory requirements)

Receive Sensitivity (two chains typical sensitivity)

802.11b: up to -92dBm @1M

802.11g: up to -95dBm @6M

802.11a: up to -95dBm @6M

802.11an HT20: up to -76dBm

802.11an HT40: up to -73dBm

Please note, values differ based on mode, frequency and throughput

Interfaces

4x RP-TNC antenna ports

2x Gigabit Ethernet port with PoE in

Type SMA GPS receiver antenna port (on GPS ready units)

USB interface (Master)

Serial Interface (RJ 45 proprietary)

DC in port

Management interface: Supported via RJ 45 Ethernet ports

Package Content

Mounting bracket and accessories

Hardware Installation and Quick Start Guides

DC power supply

Power Consumption

48V DC, 20W maximum (with both radios)

Networking

Full 802.11b/g, 802.11a, 802.11n Client Compatibility

Multiple intelligent routing options

Bridging on request

Support for static & dynamic addressing for wireless and wired clients

Onboard DHCP Server or Forwarder

Quality of Service (On request)

802.11e WMM

802.11q VLAN support

Multiple SSID support

Security

Authentication: WPA, WPA2, 802.11i RADIUS, 802.1x - Encryption Algorithms: AES, WPA, WPA2, WPAPSK, WPA2PSK, TKIP, WEP, (128 bit AES)

128 bit AES encryption of Backhaul and access traffic

Packet Filtering & Forwarding

Client Access Control Lists

Router Access Control

Configurations ordering information:

DN100 node with DC Power input only

DN100 node with PoE IN enabled-
DN200 node with DC power and PoE Out Enabled

Warranty

One (1) year on parts and labour

Region Info

US version: P/N 2001DN100-US

EU version: P/N 2001DN100-EU

Canada version: P/N 2001DN100-CAN

India version: P/N 2001DN100-IN

Rest of the world version: P/N 2001DN100-RW

Measurements

DN100 - 25.4x21.59x6.5 cm

Compliance

EN 301 489-1:V1.8.1:2008, EN 301 489-17:v2.1.1:2009

EN 300 328:V1.7.1:2006

EN 60950-1:2006

FCC Part 15 Sub Part B Clauses 107 & 109

FCC Part 15 Sub Part C Clause 247

FCC Part 15 Subpart E Clause 407

RSS-GEN Issue 3

RSS-210 Issue 8

RSS-102 Issue 4

MIL-STD-810G environmental and vibration standards

*Region and regulation dependent

Contact us today with your communications requirements on +44 (0)118 934 9199 or email us at sales@datasat.com